

E-filed: 7/24/2008

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

HYNIX SEMICONDUCTOR INC., HYNIX
SEMICONDUCTOR AMERICA INC.,
HYNIX SEMICONDUCTOR U.K. LTD., and
HYNIX SEMICONDUCTOR
DEUTSCHLAND GmbH,

Plaintiffs,

v.

RAMBUS INC.,

Defendant.

No. C-00-20905 RMW

ORDER DENYING THE
MANUFACTURERS' MOTION FOR A NEW
TRIAL

[Re Docket No. 3640]

RAMBUS INC.,

Plaintiff,

v.

HYNIX SEMICONDUCTOR INC., HYNIX
SEMICONDUCTOR AMERICA INC.,
HYNIX SEMICONDUCTOR
MANUFACTURING AMERICA INC.,

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA,
INC., SAMSUNG SEMICONDUCTOR, INC.,
SAMSUNG AUSTIN SEMICONDUCTOR,
L.P.,

NANYA TECHNOLOGY CORPORATION,
NANYA TECHNOLOGY CORPORATION
U.S.A.,

Defendants.

No. C-05-00334 RMW

[Re Docket No. 1678]

1 RAMBUS INC.,

2 Plaintiff,

3 v.

4 MICRON TECHNOLOGY, INC., and
5 MICRON SEMICONDUCTOR PRODUCTS,
INC.

6 Defendants.

No. C-06-00244 RMW

[Re Docket No. 1279]

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8 Following a seven-and-a-half week consolidated trial on the jury issues set forth in the
9 parties' Joint Pretrial Statement filed January 14, 2008, the jury returned a verdict in favor of
10 Rambus and against the Manufacturers.¹ *See, e.g.*, Special Verdict Form, Docket No. 1651, C-05-
11 00334-RMW (N.D. Cal. Mar. 26, 2008). Specifically, the jury found that Rambus did not commit
12 monopolization or attempted monopolization because it did not engage in anticompetitive conduct.
13 *Id.* ¶¶ 4, 8. The jury also found that Rambus did not commit fraud because it made no false
14 misrepresentations and uttered no half-truths. *Id.* ¶¶ 12, 19, 26, 31. Finally, the jury found that
15 Rambus did not commit fraud because JEDEC members did not share a clearly defined expectation
16 that members would disclose relevant information they had about patent applications or the intent to
17 file patent applications on technology being considered for adoption as a JEDEC standard.
18 *Id.* ¶ 45.

19 The Manufacturers move for a new trial pursuant to Rule 59 for a number of reasons.
20 Rambus opposes the motion. The court has reviewed the papers and considered the arguments of
21 counsel. For the reasons set forth below, the court denies the motion for a new trial.

22 I. LEGAL STANDARD UNDER RULE 59

23 After a jury has returned its verdict, the court may grant a new trial "for any reason for which
24 a new trial has heretofore been granted in an action at law in federal court." Fed. R. Civ. P.
25 59(a)(1)(A). The Manufacturers' motion for a new trial rests on an alleged error with respect to a
26 jury instruction, numerous evidentiary rulings, and on the basis that the verdict was against the

27 ¹ For the purposes of this order, the court uses "the Manufacturers" to collectively refer
28 to the Hynix, Micron, and Nanya entities.

weight of the evidence. If the allegations were supported, they could justify a new trial. *See* 11 WRIGHT, MILLER & KANE, FEDERAL PRACTICE AND PROCEDURE § 2805, at 55 (2d ed. 1995) (noting that "any error of law, if prejudicial, is a good ground for a new trial" and listing other commons reasons for holding a new trial). However, they are not.

II. THE ANTICOMPETITIVE CONDUCT INSTRUCTION

The Manufacturers first argue that jury instruction no. 26 ("Monopolization — Anticompetitive Behavior in Standard-Setting") was erroneous. The entire instruction read:

The Manufacturers allege that Rambus willfully acquired or maintained monopoly power based on anticompetitive behavior at JEDEC. JEDEC is a standard-setting organization. A standard can enhance consumer welfare by ensuring interoperability of products and devices and making multiple sources of supply available to consumers. The ideal standard-setting process can allow members of a standard-setting organization to make an objective comparison between competing technologies before a standard is adopted. Based on the available information, a rational standard-setting organization can select the best technology (considering its cost and its performance) and can include that technology in the standard. To the extent the marketplace recognizes only one standard, the process of standardization may eliminate alternative technologies. When a patented technology is incorporated into such a standard, adoption of the standard may eliminate alternatives to the patented technology. Nonetheless, "winning" the competition between technologies to be included in the standard may enhance consumer welfare and not be anticompetitive, even if the technology is covered by a patent.

Disruption of a standards-setting process, however, may be anticompetitive. If (1) JEDEC members shared a clearly defined expectation that members would disclose relevant knowledge they had about patent applications or the intent to file patent applications on technology being considered for adoption as a JEDEC standard; (2) Rambus knowingly failed to disclose such information; (3) JEDEC members relied on the requirement that Rambus would disclose such relevant patent applications or its intent to file such applications when JEDEC adopted its standards; and (4) Rambus later attempted to enforce such a patent against a standard-compliant product, then you may find that Rambus willfully acquired or maintained monopoly power through anticompetitive acts.

In determining whether JEDEC members shared a clearly defined expectation that patent applications or the intent to file patent applications on standards being considered by JEDEC must be disclosed, you may consider, among other factors: (1) the expectations of individual JEDEC members; (2) any behavior by JEDEC members with respect to disclosing or not disclosing such information; (3) oral information communicated or discussed at JEDEC meetings or in JEDEC minutes; (4) any written rules of JEDEC made available to members; (5) customs of the industry; and (6) the purpose of JEDEC. ***The written rules of JEDEC during the time that Rambus was a member were not in and of themselves definite enough to require mandatory disclosure of patent applications or the intent to file such applications.*** However, those rules may be considered as a factor in deciding whether the JEDEC members shared a clearly defined expectation that such applications or the intent to file such applications would be disclosed.

Jury Instructions, Docket No. 1650, *Rambus Inc. v. Hynix Semiconductor Inc.*, C-05-00334-RMW, at 33 (N.D. Cal. Mar. 25, 2008) (emphasis added). Specifically, the Manufacturers argue that the emphasized portion instructing the jury that JEDEC's written policies alone were not enough to require disclosure improperly removed a factual issue from the jury's decision making.

The court disagrees. Whether there is a duty to disclose information is a question of law, though factual disputes must be resolved by the jury. *See* Rest. (2d) Torts § 551, cmt. m.² In this case, the court instructed the jury that a claim for fraud or monopolization could stem from the violation of a "shared" and "clearly defined expectation" that JEDEC members would disclose relevant information. The jury was further instructed on a number of factors to consider, but the court also stated that JEDEC's written rules alone were not by themselves definite enough to require mandatory disclosure of patent applications or the intent to file such applications. This caveat represented the court's narrow holding limiting the legal duty to disclose.

That instruction flowed from the court's prior summary judgment rulings in these consolidated cases. In the 00-20905 case, the court noted the vagueness of the JEDEC patent disclosure policies, and therefore held that "breach of JEDEC's disclosure policy, by itself, is not sufficient to constitute antitrust liability." *See Hynix Semiconductor Inc. v. Rambus Inc.*, 441 F. Supp. 2d 1066, 1081 (N.D. Cal. 2006). The court repeated this ruling from *Hynix* in the 05-00334 and 06-00244 cases and highlighted the need for clear boundaries to section 2 liability. *See* Docket No. 1004, *Rambus Inc. v. Hynix Semiconductor, Inc.*, C-05-00334-RMW, at 4-5 (N.D. Cal. Jan. 5, 2008). It therefore "affirm[ed] its summary adjudication that any alleged breach of the written JEDEC disclosure policies, without more, cannot give rise to antitrust liability." *Id.* at 5. In short, the court determined that a legal duty to disclose patent applications or the intent to file such applications could not be based *solely* on the written policies of JEDEC. This conclusion was in part

² The Federal Circuit suggests that whether a duty to disclose exists is a question for the court. *Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1087 & n.3 (Fed. Cir. 2003). However, underlying factual questions such as what were the expectations of JEDEC members and what was the custom within JEDEC are underlying factual questions for the jury.

1 compelled by the policy value requiring clear rules before imposing liability for an omission.

2 This court is not the first to have concluded that JEDEC's disclosure policies were unclear.
3 The Federal Circuit remarked that the disclosure policies featured "a staggering lack of defining
4 details." *Rambus Inc. v. Infineon Technologies AG*, 318 F.3d 1081, 1102 (Fed. Cir. 2003). It further
5 explained that "[w]hen direct competitors participate in an open standards committee, their work
6 necessitates a written patent policy with clear guidance on the committee's intellectual property
7 position." *Id.* The court therefore held that the written policies of JEDEC could not "provide a firm
8 basis for the disclosure duty necessary for a fraud verdict." *Id.*

9 The D.C. Circuit also considered the JEDEC disclosure rules at issue in its opinion reversing
10 the FTC's decision holding Rambus liable for monopolization. It remarked that "the need for clarity
11 seems especially acute where disclosure of those trade secrets itself implicates antitrust concerns;
12 JEDEC involved, after all, collaboration by *competitors*." *Rambus Inc. v. Fed. Trade Comm'n*, 522
13 F.3d 456, 468 (D.C. Cir. 2008) (emphasis in original). It further characterized any evidence
14 supporting a disclosure duty as "rather weak" and chastised the FTC for interpreting that evidence
15 "aggressive[ly]." *Id.* at 469.

16 The Manufacturers argue that they introduced sufficient evidence that the written rules of
17 JEDEC by themselves required disclosure, and that the court "improperly directed a finding" by
18 instructing the jury that it could not find that an expectation of disclosure existed based on JEDEC's
19 written rules alone. For the reasons stated above, JEDEC's written rules alone could not create a
20 duty to disclose patent applications. Nonetheless, had the jury believed that the Manufacturers
21 established that JEDEC's written rules required disclosure, the jury could have found a clearly
22 defined expectation by finding that *any* of five other factors existed and supported a finding of a
23 disclosure expectation. Hence, even if the court's instruction was erroneous, it was not "manifestly
24 prejudicial."

25 III. RAMBUS'S ATTORNEY'S ARGUMENT

26 The Manufacturers contend that the argument by Rambus's attorney that the Manufacturers
27 "took" Rambus's inventions was highly prejudicial. This contention has no merit. Not only was
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1 there substantial evidence to support the argument, it was appropriate for Rambus to counter the
2 Manufacturers' contention that the standards were independently developed from the "tool box" of
3 the reasonably skilled memory engineer without contribution from anything from Rambus.
4 However, evidence showed that the JEDEC members had available to them during the development
5 of the standards Rambus's PCT application. Other evidence suggested the Manufacturers utilized
6 Rambus's inventions. *See, e.g.* Trial Ex. 5020, at 37-40 (internal Hynix document showing a
7 reference to Rambus's DRAM in its SDR/DDR design documents); Tr. 4057:7-15, 5132:25-5133:2,
8 513411-21 (testimony of Micron CEO Steve Appleton regarding Micron's use of Rambus's
9 technologies in its non-JEDEC RLDRAM and RLDRAM2 products).

10 Even if Rambus's argument was improper, which it was not, it would have had to "permeate"
11 the proceedings to justify a new trial. *See Anheuser-Busch, Inc. v. Natural Beverage Distributors*, 69
12 F.3d 337, 346 (9th Cir. 1995). The court should order a new trial only where it firmly believes that
13 the jury "was influenced by passion and prejudice in reaching its verdict." *Standard Oil Co. of*
14 *California v. Perkins*, 347 F.2d 379, 388 (9th Cir.1965).

15 The facts of these two cases illustrate the burden that must be met to set aside a jury verdict
16 based on an attorney's conduct. In *Standard Oil*, the defendant relied on "six instances where
17 counsel for Perkins, in the presence of the jury offered gratuitous observations that suggested
18 Standard was a malevolent Goliath and Perkins a righteous David." *Id.* While "[s]uch conduct is
19 not to be condoned and certainly should not be rewarded," the court could not "attach enough
20 significance to any of the matters or all of them collectively to conclude with any degree of
21 assurance that the verdict was tainted." *Id.* On the other hand, in *Anheuser-Busch*, the trial court
22 granted a new trial and the Ninth Circuit affirmed because the plaintiff "repeatedly violated its *in*
23 *limine* rulings" in its questioning of witnesses about certain offers. *Anheuser-Busch*, 69 F.3d at 346.
24 The attorney then emphasized the inadmissible evidence in closing argument by arguing that "In
25 some other context, they would call this kind of stuff extortion. Or Attempted Extortion." *Id.* at 347.
26 Moreover, some of the plaintiff's testimony appeared to have been false. *Id.*

27 Here, the Manufacturers argue that Rambus's counsel improperly argued that the
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Manufacturers "took" Rambus's inventions, and that the "sole purpose of this line of argument was to impugn the Manufacturers and inflame the jury." Referring to the Manufacturers' use of Rambus's technology as "taking" obviously conveys emotional force. As Rambus's counsel stated, "I told you that the Manufacturers and JEDEC knew about Rambus's inventions; I told you they took them, strong language, took them, and they took them because they didn't want to pay." Tr. 5958:11-14.

But stray instances of "strong words" alone do not justify ordering a new trial on the basis of attorney misconduct. *Standard Oil*, 347 F.2d at 388. Nor were Rambus's "strong words" any more inflammatory than the closing argument by the Manufacturers. At one point, in explaining the stakes involved in the case, the Manufacturers' counsel argued, "So the billion dollar fabs that we have, you know, the employees could all go away. That's the risk we're taking by having the audacity to challenge this conduct. So, yes, we do have to fight it rather than give in to really what is extortion." Tr. 6075:12-17. Furthermore, placing any reference to "taking" inventions in the context of the whole argument, the court does not believe that such argument tainted the jury's deliberations or inflamed their passions. Indeed, the Manufacturers do not explain how Rambus's counsel's "strong words" influenced the jury's findings of no anticompetitive conduct, no misrepresentations, and no duty to disclose.

IV. EVIDENTIARY RULINGS

The Manufacturers next argue that the court erred in making various evidentiary rulings and that these "highly prejudicial" errors require a new trial. After reviewing the alleged errors, the court disagrees. Throughout the trial, the court was inundated with extensive briefing on evidentiary matters raised by the parties. The parties appeared intent on preserving every possible issue for appeal regardless of its significance.³ The court carefully reviewed this briefing and made what it believed were fair and appropriate rulings. The court has again reviewed those rulings and finds no

³ By the court's rough count, the parties filed at least 90 briefs during the course of the trial. Although the court limited such briefs to four pages with four pages for opposition, by conservative estimate, the court considered over 500 pages of briefing over the course of the trial. This is in addition to the dozens of pre-trial *Daubert* and *in limine* motions totaling 100's of pages.

error in them.

A. Alleged Exclusion of Evidence Under Threat of Introduction of Price-Fixing or Boycott Evidence

An issue raised several times during trial was whether Rambus could introduce evidence that the Manufacturers allegedly engaged in price-fixing to destroy RDRAM and Rambus. Prior to the trial, the Manufacturers moved *in limine* to exclude any evidence related to plea agreements or alleged boycotts. Addressing the first motion, the court ruled that:

Rambus may not introduce into evidence the Samsung or Hynix guilty pleas for the purpose of impeaching character for truthfulness. If Rambus wishes to raise the issue of a price-fixing conspiracy to (1) inquire about specific instances of conduct on cross-examination to impeach character for truthfulness, or (2) rebut evidence regarding various lines of argument about pro-competitive behavior in the DRAM industry, Rambus must first obtain permission from the court outside the presence of the jury.

Hynix Semiconductor Inc. v. Rambus Inc., 2008 WL 350647, at *1 (N.D. Cal. Feb. 3, 2008).⁴

Addressing the second motion, the court ruled that:

Ruling is deferred so that court can consider how evidence develops. Rambus must seek permission from the court outside the presence of the jury before mentioning anything about alleged boycott or price manipulation. If the Manufacturers present evidence that RDRAM failed or experienced lack of market success because it was too expensive or had technical flaws or performance problems, Rambus should be able to explain other reasons that caused or contributed to its RDRAM's market performance. However, if the Manufacturers do not get into the reasons for RDRAM's lack of market success, evidence concerning an alleged boycott or price manipulation seems irrelevant.

Id. at *2.

At various points in the trial, Rambus argued outside the presence of the jury that it should be able to introduce evidence related to price-fixing or boycotts. Such requests were consistently denied. For example, a lengthy argument ensued over whether Brian Shirley, a Micron employee, could testify regarding Micron's profit margins to bolster Micron's case that its negative profits made incurring the costs to switch away from Rambus's technology impossible. *See* Tr. 2297:5-2321:18.

⁴ The "Samsung or Hynix guilty pleas" refer to the following documents: Plea Agreement, Docket No. 11, *United States v. Hynix Semiconductor Inc.*, CR-05-00249 PJH (N.D. Cal. May 11, 2005) (pleading guilty to price-fixing of SDRAM and DDR SDRAM and agreeing not to prosecute any charges related to RDRAM), and Plea Agreement, Docket No. 8, *United States v. Samsung Electronics Co., Ltd.*, CR-05-00643 (N.D. Cal. Nov. 30, 2005) (pleading guilty to price-fixing of SDRAM, DDR SDRAM, and RDRAM).

1 Mr. Price (Micron's counsel) proffered that he would like to ask Mr. Shirley about Micron's profit
2 margins. Rambus argued that any inquiry into Micron's profits raises the question of how they
3 obtained those profits, including any alleged participation in a DRAM cartel. The court ruled that:

4 Basically, it seems to me that with respect to lock in costs and the
5 Manufacturers' presentation, that it's legitimate for Rambus to go in and show what
6 a small percentage of – or create an inference that the costs of certain items are minor
7 or very small compared to a billion dollars of revenue. At the same time, it also
8 seems to me that it's legitimate to for the Manufacturers to come back and show that
9 that is a – that the costs are such that the revenues do not reflect obviously the profit
10 margin. And it seems to me that the profit margin is legitimate rebuttal to what
11 Rambus is presenting.

12 That raises a question as to, well, does the price fixing issue then allow
13 Rambus to suggest that the profit margin would have been different because of price
14 fixing, or the ability to price fix? And it seems to me that that is, to some extent,
15 speculative even though there have been guilty pleas to some extent.

16 I just – but it is so incredibly prejudicial, it seems to me, that it's probative
17 value, which I think is really marginal given the issues we're dealing with, that the
18 prejudicial effect far outweighs the probative value.

19 That being said, I think the redirect should just be limited to testimony with
20 respect to whether or not costs have exceeded revenue during the past eight years,
21 and that there was a loss rather than a profit and not go into detail.

22 Tr. 2320:8-2321:16. Over the course of the entire trial, the court never admitted any price-fixing or
23 boycott evidence.

24 Nevertheless, the Manufacturers argue that the court erred by not conclusively excluding all
25 evidence related to price-fixing or boycotts prior to trial. The Manufacturers argue that the
26 possibility that such evidence could be admitted operated as a "sword of Damocles" and prevented
27 them from offering certain types of evidence that would have helped their case. For example, the
28 Manufacturers suggest that they would have offered evidence about the pro-competitive nature of
JEDEC and standard-setting and that RDRAM was an inferior technology.

To begin, the Manufacturers never proffered such evidence or testimony. When the
Manufacturers sought to admit testimony that might touch on matters related to price-fixing and
sought guidance from the court, the court admitted the evidence and explained the limits necessary
to *avoid* making price-fixing evidence relevant. *See, e.g.*, Tr. 2320:8-2321:6 (explaining limits on
testimony regarding Micron's profit margins); 5404:3-14 (explaining limits on questioning regarding

1 industry-wide sales figures to avoid evidence of price-fixing). Had the Manufacturers proffered
2 testimony about the pro-competitive nature of JEDEC, it is likely that it could have been tailored to
3 avoid making evidence regarding price-fixing probative.

4 Furthermore, the court's order stated that Rambus must seek permission to introduce
5 evidence regarding price-fixing to "rebut evidence regarding various lines of argument about
6 pro-competitive behavior in the DRAM industry." The order did not unequivocally immunize
7 discussion of JEDEC from rebuttal regarding price-fixing, but the order did make plain that price-
8 fixing evidence was inadmissible unless Rambus first obtained permission from the court outside the
9 presence of the jury. The only evidence "effectively excluded" by this order was Rambus's evidence
10 of price-fixing, not the Manufacturer's evidence about JEDEC.

11 In any event, the "effective" exclusion of evidence regarding JEDEC's procompetitive nature
12 was not manifestly prejudicial because the jury heard evidence regarding the benefits of standard-
13 setting. Desi Rhoden testified that standards are important because "they provide
14 interchangeability" and described the benefits of having many suppliers making a standardized,
15 interoperable product. *See* Tr. 451:10-452:19. He further testified that he considered JEDEC
16 important to the semiconductor industry, as well as other electronics industries. *See* Tr. 455:5-22.
17 Contrary to the muzzled presentation of evidence depicted in the Manufacturers' motion, the
18 Manufacturers' very first witness laid out the mission of JEDEC, the benefits of standard-setting, and
19 the importance of standards. Mr. Bechtolsheim also testified regarding Sun and Cisco's preferences
20 for open standards and the benefits of open standards. *See* Tr. 1499:7-1500:10.

21 With respect to RDRAM's merits and failure, the court does not see how it could have
22 permitted the Manufacturers to introduce evidence that RDRAM was a technical failure without
23 permitting Rambus to introduce evidence that RDRAM was superior and failed because it was
24 allegedly illegally boycotted by DRAM manufacturers. Such boycott evidence would be highly
25 probative in rebutting the Manufacturers' arguments about technical superiority, and while they
26 would be prejudicial, they would not be *unfairly* prejudicial in that context. Accordingly, the relief
27 the Manufacturers retrospectively request - the entry of a blanket order forbidding Rambus from
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1 introducing evidence of the Manufacturers' conduct with respect to RDRAM no matter how
 2 probative – would have been unfair to Rambus.

3 In short, the Manufacturers after-the-fact argue that they would have tried their case
 4 differently had the court entered a blanket order excluding evidence of their misdeeds. The court
 5 declined to enter such an order. Instead, the court presumptively excluded evidence regarding price-
 6 fixing and boycotts, contingent on how the evidence developed at trial. This was not an erroneous
 7 ruling. The Manufacturers were free to introduce whatever evidence they pleased, cognizant of the
 8 risk that if evidence of price-fixing or an agreement to boycott was probative in rebutting their
 9 evidence, it *might* come into evidence. To be sure, the Manufacturers had to be careful in their
 10 presentation of evidence to exclude the portion of the story in which the Manufacturers allegedly
 11 violated the antitrust laws. This was a "sword of Damocles" hanging over the Manufacturers' case,
 12 but it was placed there by the Manufacturers' own alleged conduct – not the court's rulings.

13 B. Graham Allan

14 Repeating a theme, the Manufacturers argue that the court "effectively" barred them from
 15 presenting their case. Here, the Manufacturers complain that court prevented them from eliciting
 16 testimony from Graham Allan (one of Hynix's expert witnesses) about his understanding of JEDEC's
 17 disclosure policies. Mr. Allan was previously a JEDEC representative for Mosaid. In unrelated
 18 litigation, Micron has alleged that Mosaid committed fraud during its tenure at JEDEC based on
 19 various misleading disclosures and on its failure to make additional disclosures. Portions of the
 20 complaint suggest that Mr. Allan, as Mosaid's JEDEC representative, was responsible for Mosaid's
 21 alleged failures to disclose. Prior to Mr. Allan's testimony, the manufacturers moved to prevent
 22 Rambus from questioning Mr. Allan about the allegations contained in Micron's lawsuit with
 23 Mosaid.

24 The court circulated a draft order to the parties suggesting that the court would deny the
 25 motion. *See* Craig Decl., Ex. Y. The court then heard argument regarding its tentative order. *See*
 26 Tr. 2365:10-2381:22. After extensive argument, the following discussion occurred:

27 Mr. Price: I think there will still be, likely to be argument, because *my*
 28 *understanding is that Mr. Allan's testimony is going to have*

1 *nothing to do with his understanding of JEDEC policy.* He's being
 2 called as an expert witness and is not going near this topic.
 3 The court: So he's not even going to talk about JEDEC.
 Mr. Price: He'll talk about JEDEC policy.
 4 Mr. Nissly: Well, since we'll put on Mr. Allan, maybe I can amplify. *It is*
 certainly not our intention to ask Mr. Allan questions about his
 understanding of the JEDEC patent policy. That wasn't what we had
 5 in mind with him. His testimony is, as we've laid out in the motions
 6 that have been filed before the court, I certainly wouldn't say that he
 7 wouldn't be asked a question about JEDEC because, of course, he
 went there for a long time. But I don't anticipate getting into any
 areas that would give the court concern. But I just want to make sure
 I understand what the areas of the court's concern are so we can be
 clear here.
 8 The court: Well, basically my concern is that if Mr. Allan were to testify as to
 the disclosure policy at JEDEC, that that would certainly allow
 9 questions on cross about his understanding about disclosure, what he
 did or did not do.
 10 Mr. Nissly: Um-hum.
 The court: And probably would open the door to a question about any
 11 allegations that he did not disclose something he should have
 disclosed.
 12 Mr. Nissly: Okay.
 The court: But if the testimony of Graham Allan is basically only that he heard
 13 certain presentations at JEDEC, or how the standards were developed
 14 when he was there, percipient knowledge of what went on when he
 was there having nothing to do with disclosure, that's a totally
 different situation.
 15 Mr. Nissly: That's helpful. Thank you, your Honor.

16 Tr. 2376:25-2378:20 (emphasis added). Finally, the court ruled that "based on what I've heard,
 17 we're going to have to wait and hear his direct and then if there's an issue, we'll discuss it, with the
 18 understanding that if there's a desire to get into an allegation made in Mosaid/Micron, that that be
 19 brought up outside the presence of the jury." Tr. 2381:16-22.

20 The Manufacturers now argue that they wished to ask Mr. Allan about his understanding of
 21 the JEDEC disclosure duty, but that the court's refusal to prevent Rambus from cross-examining Mr.
 22 Allan about his understanding of that duty and allegations that he did not comply with the duty
 23 "effectively prohibited" them from doing so. This argument seems disingenuous since the
 24 Manufacturers twice disclaimed any intention of asking Mr. Allan about the JEDEC disclosure duty,
 25 as illustrated in the excerpt above.

26 While the Manufacturers' assertion of error is not only bold, it is baseless. The court made
 27 no erroneous ruling; it deferred ruling on the scope of Rambus's cross-examination based on Mr.
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1 Allan's direct examination. Even had it entered its tentative ruling, the court did not err. Were Mr.
 2 Allan asked about a JEDEC disclosure duty, and, as the Manufacturers suggest, that he testified that
 3 a JEDEC disclosure duty broadly extended to patent applications and intentions to file, then Rambus
 4 would have been well within the scope of permissible cross-examination to ask about alleged
 5 instances where Mr. Allan failed to make such broad disclosures.

6 Finally, the Manufacturers claim that Rambus's counsel argued unethically in pointing out to
 7 the jury that the Manufacturers did not ask Mr. Allan about his understanding of the JEDEC
 8 disclosure duty and suggested the inference that he would have testified in Rambus's favor had he
 9 been asked. In Rambus's closing argument, Mr. Stone argued:

10 Let me remind you of Graham Allan. Remember when he was called – he
 11 was paid to testify. He was asked some engineering questions. But he was also
 asked, in his introduction, he was asked, well, did you attend JEDEC?

12 Yes.

You know Richard Crisp?

13 Yes.

What years did you go?

14 Oh, '92 through much later.

15 And then he was asked the question: "Now Mr. Allan, it's my intention not
 to ask you about JEDEC policies or JEDEC rules or anything like that." That was
 Mr. Ruby's question, not mine.

16 "I wish to ask you some engineering questions. If you think that I've asked
 you a question about JEDEC policies or JEDEC rules, point that out to me because
 that wasn't my intention. Fair enough?"

17 "Yes."

18 Why, if we're trying to see if there's a clearly defined expectation shared by
 JEDEC members is a JEDEC member, who's called to testify and paid to be here, not
 asked what his expectation was?

19 Well, it's because his expectation, I submit to you and it's your judgment on
 the credibility of each of these witnesses, his testimony might have been [that there
 20 was no duty to disclose patent applications]."

21 Tr. 5991:10-5992:17.

22 The Manufacturers argue that this was unethical because Rambus knew Mr. Allan would
 23 have testified that the JEDEC disclosure duty extended to patent applications. The Manufacturers
 24 base this purported knowledge on the following statements from Mr. Allan's expert reports:

25 Additionally, Rambus' membership in JEDEC clearly required them to disclose any
 26 relevant proprietary technology that relates to the work of the JC42.3 committee
 during the time Rambus was a member.

27 Craig Decl., Ex. X at 8.

1 Based on my personal experience and the discussions in which I participated as a
2 JEDEC member, the working members of the JEDEC committees interpreted and
3 understood the policy to impose a requirement of good faith disclosure of
4 information that would compromise the openness of a proposed standard. JEDEC
5 participants are required to disclose the possible inclusion of patented technology
6 and to allow the committee to make informed decisions regarding the possible
7 inclusion of patented technology (e.g., who owns it?, what are the licensing terms?,
8 are there other options?, etc.). Given the open concern regarding submarine patents
9 and the typical length of time consumed to successfully publish a JEDEC standard,
10 committee participants also had a good faith duty to disclose possible incorporation
11 of intellectual property as early in the standardization process as possible so as to not
12 waste the time of the committee or benefit from the associated delays.

13 Craig Decl., Ex. W at 9-10. The Manufacturers read too much into Mr. Allan's vague discussion of
14 a disclosure duty. The first excerpt refers to "relevant proprietary technology," which seems most
15 likely to refer only to patents based on the "proprietary" qualification. The second excerpt refers to
16 a duty to disclose patents, and then a "good faith duty to disclose possible incorporation of
17 intellectual property as early . . . as possible." While the latter may refer to patent applications, it is
18 unclear whether such disclosure was *required* and when "as early . . . as possible" vested. In short,
19 based on Mr. Allan's reports, it is not clear what he would have answered had he been asked whether
20 JEDEC members shared an expectation requiring the disclosure of patent applications. If Mr. Allan
21 believed that patent applications had to be disclosed, it seems he could have said so in much more
22 direct and succinct language than he used in his reports. Accordingly, it is not clear that Rambus's
23 counsel knowingly urged an unreasonable inference to the jury.

24 Finally, it is worth noting that this is the first time the Manufacturers have raised any
25 objection to Rambus's counsel's conduct in closing argument. To be sure, one need not object
26 during the closing argument. *Walden v. Illinois Central Gulf R.R.*, 975 F.2d 361, 366 (7th Cir.
27 1992). But "objections to closing argument must be made prior to the submission of the case to the
28 jury in order to enable the judge to make a curative instruction if necessary." *Id.* Even if the
Manufacturers had a valid objection to how Rambus's counsel argued about the Manufacturers'
failure to ask Mr. Allan a question, it was waived.

29 C. License Agreement Renegotiations

30 The Manufacturers next argue that the court erred by excluding evidence that Rambus
31 accepted lower royalty rates in renegotiations following its initial losses in the *Infineon* litigation.

1 The court excluded such evidence and explained its reasoning in a detailed order. *See* Docket No.
2 1361, C-05-00334-RMW (N.D. Cal. Feb. 26, 2008); *see also* Craig Decl. Ex. BB.⁵ In short, the
3 court concluded that evidence of renegotiated royalty rates was irrelevant and, to the extent they
4 were relevant, unfairly prejudicial because explaining their context would be confusing and would
5 take too much time. *Id.* at 4-6. In hindsight, the court believes the ruling was sound and that the
6 renegotiated royalty rates had no probative value but an enormous potential for confusion and
7 mischief.

8 Putting aside the merits of the decision, the Manufacturers do not satisfactorily explain how
9 the exclusion of this evidence prejudiced them. The Manufacturers argue that the renegotiated rates
10 are "highly probative" of "Rambus's licensing practices, whether Rambus possessed market power,
11 and whether Rambus would have offered a RAND assurance." If anything, Rambus being forced to
12 accept lower rates in renegotiation suggests Rambus *lacked* market power. Nor do the
13 Manufacturers explain these other relevance theories or how they connect to an element of their
14 antitrust or fraud claims. The Manufacturers do suggest that Rambus's evidence of royalty rates
15 (which Rambus offered as evidence that it licensed on a reasonable and non-discriminatory basis)
16 prejudiced them by suggesting to the jury that the Manufacturers were unreasonable in not taking the
17 same licensing terms, when in fact, had the Manufacturers licensed Rambus's technologies at the
18 original rates, they would have been at a disadvantage against the DRAM manufacturers with
19 renegotiated royalty rates. While the Manufacturers may have wanted to dispel this inference from
20 the jury's mind, the evidence the Manufacturers sought to offer was still minimally, if at all,
21 probative and substantially more prejudicial due to its confusing context. In sum, the Manufacturers
22 fail to explain how the exclusion of these minor pieces of evidence made the proceedings "grossly
23 unfair." Because the precluded evidence would have had no impact on the Manufacturers' claims or
24 the jury verdict, its exclusion is no basis for granting a new trial.

25
26 ⁵ The court later vacated the portion of this order related to the admissibility of certain
27 purported JEDEC board minutes. On reconsideration, the court agreed with the Manufacturers and
28 determined that the proffered board minutes appeared untrustworthy and could not qualify as business
records.

D. Rambus's Privileged Documents

The Manufacturers argue that the court erred by allowing Rambus to "claw back" portions of four documents that the Manufacturers had on their trial exhibit list. The court denied Rambus's first motion *in limine* to exclude certain exhibits, but explained that Rambus could reassert privilege as to documents that were ordered produced pursuant to the crime-fraud exception given that the court found that Rambus had not engaged in spoliation (thus vitiating the basis for ordering the documents produced). *Hynix Semiconductor Inc. v. Rambus Inc.*, 2008 WL 350641 (N.D. Cal. Feb. 2, 2008). On the basis of that opinion's reasoning and further briefing, the court granted Rambus's motion to exclude portions of four documents from evidence as privileged. *See* Tr. 819:15-820:12. The court maintains that this decision was correct.

Putting aside whether the four documents are privileged, the Manufacturers have failed to demonstrate that their case was unfairly prejudiced by the documents' exclusion. The Manufacturers' argue that the four documents "are directly relevant to [their] fraud and antitrust claims" because the documents purportedly show that Rambus believed that JEDEC SDRAM infringed its patents and that it planned to sue the Manufacturers. The Manufacturers do not, however, explain how this evidence would have been relevant to dissuading the jury from finding that JEDEC members shared no disclosure expectation, that Rambus made no false statements or uttered any half-truths, and that Rambus did not engage in anticompetitive conduct. Nor does the court believe the Manufacturers can make a persuasive argument that these documents were relevant to those elements of their claims. Even if the Manufacturers should have been permitted to introduce the documents, they were not harmed by their inability to do so.

E. Mr. McAlexander's Proffered Rebuttal Testimony

At the end of Rambus's case, the Manufacturers sought to put on rebuttal evidence. The court permitted some limited rebuttal, but did not permit the Manufacturers to recall their technical expert, Mr. McAlexander, to testify that he did not believe Rambus's technologies were "superior" to the alternative technologies.

To begin, even if the exclusion of this evidence were improper, the court doubts it would

1 have influenced the jury's verdict on the antitrust claim. Mr. McAlexander's proffered rebuttal
2 testimony would only affect the outcome of this case if the jury based its finding that Rambus's
3 conduct was not anticompetitive on Rambus's technological superiority. While the interrogatory on
4 anticompetitive conduct does not explain *why* the jury did not find Rambus's conduct
5 anticompetitive, a compelling inference is reasonably drawn from the jury's separate finding on the
6 fraud claim that JEDEC members lacked a clear expectation of disclosure. *See* Docket No. 1651, C-
7 05-00334 at 12. Given the similarity in the instructions regarding disclosure expectations, it is
8 apparent that the jury returned its verdict on the antitrust claim because it found no duty to disclose
9 information. Hence, any exclusion of Mr. McAlexander's rebuttal testimony was irrelevant.

10 Second, the Manufacturers overinflate the probative value of Mr. McAlexander's proffered
11 testimony. Mr. McAlexander had already testified that he considered the various alternative
12 technologies "viable" alternatives to the Rambus technologies, Tr. 2100:8-2126:22, and "not
13 slower," Tr. 2127:5-2128:3. As the court explained in rejecting the Manufacturers' proffer,
14 additional testimony that Rambus's technologies were "not superior" is largely a semantic
15 distinction. *See* Tr. 5325:17-5327:12 (limiting Mr. McAlexander's rebuttal testimony); 5641:1-4
16 (confirming tentative ruling). The purported rebuttal was in essence a request to repeat Mr.
17 McAlexander's direct testimony in rebuttal. Based on the testimony Mr. McAlexander had already
18 given, the jury could easily infer from "viable" and "not slower" that Rambus's technologies were
19 "not superior."

20 Finally, the court has broad discretion over the scope of rebuttal. *See* Fed. R. Evid. 611(a).
21 Here, the court found that the Manufacturers' additional evidence sought from Mr. McAlexander
22 was of minimal probative value and would have given the Manufacturers the opportunity to present
23 Mr. McAlexander's testimony twice, once in its case in chief and again in rebuttal. That finding was
24 well within the court's discretion.

25 F. Evidence Regarding the Manufacturers' Coordinated Litigation Strategy

26 The parties frequently disputed the admissibility of evidence related to the Manufacturers'
27 coordinated litigation strategy. For context, the Manufacturers' theory of the case was that Rambus's
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conduct at JEDEC created a "patent trap" and that the Manufacturers' expenses in defending patent litigation constituted the harm caused by Rambus's anticompetitive conduct. Rambus urged that evidence that the Manufacturers coordinated their efforts and jointly filed declaratory judgment actions against Rambus negated the element of causation because Rambus's conduct at JEDEC did not "cause" the Manufacturers to incur litigation expenses.

The court deferred ruling on the Manufacturers' first motion addressed to the topic because it appeared to address only documents such as the Manufacturers' joint defense agreement which was not something Rambus sought to offer. *See Hynix Semiconductor Inc. v. Rambus Inc.*, 2008 WL 350647, *2 (N.D. Cal. Feb. 3, 2008). During trial, the Manufacturers raised the issue again. At that point, the court denied the motion because the evidence Rambus had offered did not appear prejudicial to the court. *See* Tr. 2685:12-20. The issue came to a head later during the questioning of Farhad Tabrizi, a former Hynix employee. *See* Tr. 3955:19-4008:12. Contrary to the Manufacturers' assertion in their brief, their objections were not "to no avail." After giving Rambus the legitimate opportunity to demonstrate Mr. Tabrizi's bias against Rambus, the court curtailed Rambus's questioning regarding litigation. *E.g.*, 4002:20-4003:8.

Having had the chance to comprehend the scope of Rambus's evidence on causation, the court held that Rambus could not put on additional evidence related to the Manufacturers' coordinated litigation strategy. Tr. 4525:10-4527:1. The court reached this conclusion by finding that if the Manufacturers prevailed on the other elements of their antitrust claim, they had introduced sufficient evidence to prevail as a matter of law on causation. *See* Tr. 4525:15-4526:2.⁶ To ameliorate any prejudice from argument regarding coordinated litigation strategy, the court instructed the jury that "[w]hether or not the Manufacturers developed a joint litigation strategy in opposing Rambus's claims of patent infringement is not relevant to the issues before you at this time." Jury Instructions, Docket No. 1650, *Rambus Inc. v. Hynix Semiconductor Inc.*, C-05-00334-RMW, at 13 (N.D. Cal. Mar. 25, 2008).

⁶ The court has some reservations about the correctness of this ruling but since it benefitted the Manufacturers, the court's reservations are of no consequence.

The Manufacturers argue that the coordinated litigation strategy was irrelevant, that Rambus's argument regarding their litigation strategy was unfairly prejudicial, and that the court should have given the jury instruction that they proposed. Taken as a whole, the court is unpersuaded. The jury was instructed that the Manufacturers' coordinated litigation efforts were irrelevant to the first phase of trial. The evidence in the record, while suggesting that Hynix and Micron may have discussed coordinating an attack on Rambus, was also relevant to various witnesses' bias against Rambus and therefore relevant to their credibility. The court did not perceive that Rambus's argument unfairly tainted the jury's reasoning. Accordingly, the evidence and argument related to the Manufacturers' desire to mutually attack Rambus does not support granting a new trial.

G. The Siemens Presentations

The Manufacturers take issue with the court's decision to admit into evidence four internal presentations from Siemens and IBM. The court repeatedly explained that the testimony introducing the exhibits and exhibits could only be considered to prove notice to, and the state of mind of, Siemens and IBM about the scope of Rambus's technology.⁷ Tr. 5000:17-5001:3; 5009:6-12; 5012:7-11. The limiting instructions focused the jury on the relevance of the evidence and made clear that the evidence was not to be considered for the truth of its contents. The so-limited exhibits were probative to show how DRAM manufacturers, in particular IBM and Siemens, both members of JEDEC, had notice that Rambus was seeking broad patent claims.

With respect to exhibits 6078 and 9005, the Manufacturers argue that the characterization of Rambus as a "deadly menace" was unfairly prejudicial because the basis for the concern animating the statement was not related to Rambus's patents. The Manufacturers point out that Mr. Meyer (the exhibit's author) did not agree that Rambus was a "deadly menace" and that he "exaggerated." One

⁷ The Manufacturers also object to the deposition testimony used to authenticate and introduce the exhibits. The court issued an opinion during trial explaining the reasons for admitting the deposition testimony, and stands by the decision. *Hynix Semiconductor Inc. v. Rambus Inc.*, — F.R.D. —, 2008 WL 687252 (N.D. Cal. Mar. 10, 2008).

1 could reasonably refuse to credit Mr. Meyer's self-interested⁸ testimony disowning his statement in
2 the slides. The Manufacturers also argue that the context of the exhibit suggests that the statement
3 had nothing to do with Rambus's patents, but instead with Rambus's RDRAM architecture or
4 Rambus's corporate structure. Even were the court to accept the Manufacturers' construction as the
5 only way to interpret an ambiguous document, a JEDEC member's recognition of Rambus's
6 "fabless" corporate structure was itself probative. Rambus's business model depended on obtaining
7 patent royalties. Recognizing that, IBM or Siemens could infer that Rambus would be obtaining
8 patents and therefore obtaining licenses or bringing law suits. To the extent that this is the proper
9 construction of the "deadly menace" statement, it would have been probative of the reasonableness
10 of the reliance of IBM, Siemens, and by analogy, JEDEC and the Manufacturers, on any alleged
11 misrepresentations. The relevance of the "deadly menace" statement demonstrates another flaw in
12 the Manufacturers' motion for a new trial on this point. The Manufacturers do not explain how a
13 reference to Rambus as a "deadly menace" materially prejudiced their case given the jury's special
14 verdict findings. Hence, even if the exhibits were admitted in error, the Manufacturers have not
15 demonstrated that the error harmed them enough to warrant a new trial.

16 The Manufacturers concern over the other two exhibits (8245 and 8294) stems from the pros
17 and cons chart which suggested that SDRAM had "patent problems" regarding Rambus. The
18 Manufacturers argue that these concerns were irrelevant, and hence unduly prejudicial, because the
19 "patent problems" referred to a dual bank design (a technology not at issue in this case) in the
20 original draft of the presentation. The Manufacturers' interpretation is blind to other reasonable
21 inferences. The second, more general version of the presentation was made after the JEDEC
22 meeting at which Rambus's JEDEC representative was asked about Rambus's patents. The parties
23 presented conflicting evidence about what Rambus did in response to the question, but the response
24 taken by IBM and Siemens' representatives was to make their presentation about patent problems
25 more general. One can infer that the more general language was inserted because IBM and Siemens

27 ⁸ Mr. Meyer worked for Siemens and later Infineon. He was deposed and questioned about
28 the exhibits in litigation between Infineon and Rambus.

1 became *more* concerned about patent problems after the meeting. The Manufacturers' assertion that
 2 this evidence was irrelevant and hence prejudicial ignores the fact that it was probative regarding
 3 whether JEDEC and DRAM manufacturers had inquiry notice about Rambus's intention to seek
 4 various patents.

5 As all of the testimony and exhibits about Siemens and IBM had substantial probative value
 6 and were introduced with repeated limiting instructions, the court does not agree that the evidence
 7 was substantially more prejudicial than probative, and hence, the court did not err in admitting the
 8 exhibits for their limited purpose.

9 **H. Drs. Farmwald and Horowitz's Testimony About Alternative Technologies**

10 The Manufacturers allege that the court erred by permitting Dr. Farmwald and Dr. Horowitz
 11 to provide expert testimony regarding alternative technologies without their having provided expert
 12 reports pursuant to Federal Rule of Civil Procedure 26(a)(2)(A).⁹ The Manufacturers' argument
 13 relies entirely on the conclusory premise that Dr. Farmwald and Dr. Horowitz provided expert
 14 opinion testimony requiring a report, but they did not.

15 The proper scope of lay opinion and percipient witness testimony was a recurring issue
 16 throughout the trial as both parties aggressively offered evidence that stressed the boundaries created
 17 by Rule 702. *E.g., Hynix Semiconductor Inc. v. Rambus Inc.*, 2008 WL 504098 (N.D. Cal. Feb. 19,
 18 2008) (order addressing the testimony of Joe Macri and Ilan Krashinsky). Nonetheless, issues
 19 regarding Joe Macri's testimony were easily resolved, and provide a useful comparison to Dr.
 20 Farmwald and Dr. Horowitz's testimony. The court held that Mr. Macri was free to testify to his
 21 "percipient observations regarding votes at JEDEC, requests from JEDEC members, and
 22 descriptions of what ATI did and why they did it." *Id.* at *5. While this testimony touches on
 23 "scientific, technical, or other specialized knowledge," it falls outside of Rule 701 and 702's

24
 25 ⁹ The Manufacturers' reply brief suggests for the first time that such testimony was
 26 irrelevant. The testimony was relevant to the issue of whether Rambus's technologies were superior.
 27 From Dr. Farmwald and Dr. Horowitz's testimony that they rejected alternative technologies as inferior
 28 in the late eighties, one can infer that those technologies remained inferior into the mid-nineties (the
 time for considering whether there was a relevant technology market and whether Rambus's
 technologies were superior).

1 strictures because it is not *opinion* testimony.

2 When Rambus began to present its case, the Manufacturers moved to prevent Dr. Horowitz
 3 from providing expert testimony about various alternatives to the Rambus technologies. The court
 4 ruled on the motion from the bench as follows:

5 As far as testimony which the Manufacturers objected to as calling for expert
 6 testimony, I think Dr. Horowitz can describe the development history of his
 7 invention; in other words, what he did to develop the invention. To the extent that
 8 he considered alternatives in that development process, I think he can testify as to
 that. As to alternatives that he didn't consider that have been referred to during of
 the course of the trial, if there are any, I think that would be placing him into the
 position of an expert.

9 Tr. 4070:3-15 (Mar. 5, 2008). By that ruling, the court distinguished between Dr. Horowitz's
 10 permissible percipient testimony of what he did and what he considered in developing the Rambus
 11 technologies and impermissible expert testimony regarding his opinion of the merits of alternative
 12 technologies he did not, in fact, consider when making his inventions.

13 Dr. Horowitz's testimony conformed to these limits. *See* Tr. 4118:6-4133:14. Where doubt
 14 existed about Dr. Horowitz's testimony, it was clarified at the direction of the court by specifying
 15 that Dr. Horowitz's testimony was limited to his personal considerations during the timeframe of his
 16 development of the Rambus technologies. *E.g.*, Tr. 4121:18-4122:1 (instructing the witness to limit
 17 his testimony to "what you actually considered in your development process or design process").
 18 Where Dr. Horowitz testified that he did not consider any other technologies, he was not permitted
 19 to testify about them. *E.g.*, Tr. 4133:2-14 (preventing Dr. Horowitz from testifying about off-chip
 20 DLL because he testified that he did not consider it in his development).

21 The Manufacturers identify two specific instances where they argue that Dr. Horowitz
 22 provided improper expert testimony, each reproduced below:

23 Mr. Stone: So focus you along those lines, Professor Horowitz, I want to know
 24 about did you consider the possibility of doing fixed burst lengths or
 block sizes as opposed to variable?

25 Dr. Horowitz: We briefly considered it and thought it was not a feasible solution.

26 Mr. Stone: You thought about the fixing the value?

27 Dr. Horowitz: One could fix the value, but that seemed to have problems, right, you
 28 could use pins, but we don't want to use pins, so we didn't find – there
 wasn't a solution that we thought was anywhere near as effective as
 variable, having a register that specifies the access times.

Tr. 4122:10-15; 4127:6-12. Put simply, the two excerpts of testimony are not examples of improper expert testimony. Mr. Stone's first question begins by asking Dr. Horowitz to "focus along those lines." that is, the limits the court had just imposed on the time frame of his testimony. *See* Tr. 4121:18-4122:10. Dr. Horowitz's answers also clearly reveal that he and Dr. Farmwald considered using a fixed burst length (but rejected it) and that they considered fixing access times using pins, but that they did not want to use pins, and hence opted for using a programmable mode register. As demonstrated, nothing contained in the excerpts the Manufacturers complain about is *opinion* testimony. The testimony consists purely of Dr. Horowitz's percipient observations and decisions in developing his technology.

The Manufacturers filed a similar motion objecting to Dr. Farmwald's testimony, which Rambus opposed by suggesting it would conform Dr. Farmwald's testimony to the limits placed on Dr. Horowitz's. *See* Tr. 4928:20-24. Accordingly, the court permitted Dr. Farmwald to testify within the same limits imposed on Dr. Horowitz. In their motion, the Manufacturers identify one segment of Dr. Farmwald's testimony as improper expert testimony, reproduced below with additional context:

Mr. Stone:	Okay. Then let me ask you about DLL or PLL on a chip. Did you consider alternatives to doing that?
Dr. Farmwald:	Yes.
Mr. Stone:	And at the time, what alternatives did you consider?
Dr. Farmwald:	Again, we, we considered the alternative of using no DLL, no DLL at all. That we very quickly decided was going to have a serious performance limitation. It just wouldn't work nearly as fast. I mean, there is a real advantage to using DLL to adjust the skew of the clocks.
<u>Mr. Stone:</u>	<u>Okay, so no DLL at all, you concluded was not as good as –</u>
<u>Dr. Farmwald:</u>	<u>Significantly inferior in terms of performance.</u>

Tr. 5528:20-5529:11 (challenged portions emphasized). Stripped of its context, the emphasized portion might appear to be expert opinion testimony. But placed in its context in the trial, it is clear that Dr. Farmwald was testifying to his percipient observations and choices in developing the Rambus technologies. Because the testimony about alternative technologies by Dr. Horowitz and Dr. Farmwald was proper, it cannot serve as a basis for a motion for new trial. Further, it is highly unlikely that the Manufacturers did not learn through discovery or review of prior testimony exactly

1 what Drs. Horowitz and Dr. Farmwald would say at trial. The Manufacturers make no claim that
2 they were surprised by the inventor testimony.

3 **I. Dr. Rapp's Testimony**

4 Rambus's economic expert, Dr. Richard Rapp, provided opinions on a number of economic
5 issues and rebutted the opinions of the Manufacturers' two economists, Dr. Weinstein and Dr.
6 Gilbert. The Manufacturers take umbrage at two aspects of his testimony.

7 The first is easily dealt with. The Manufacturers argue that the court improperly permitted
8 Dr. Rapp to testify that Rambus lacked monopoly power. But the jury found that Rambus possessed
9 monopoly power. Far from being unfairly prejudicial, Dr. Rapp's allegedly improper testimony did
10 not sway the jury – the jury found for the Manufacturers on this element. Accordingly, it is not
11 grounds for a new trial and the court does not address the merits of the evidentiary ruling.

12 The second is that Dr. Rapp improperly opined that Rambus's technology was superior based
13 on the Manufacturers' revealed preference for incorporating Rambus's technologies in their products,
14 even when not required by a JEDEC standard. As addressed above, this does not appear material
15 given the jury's responses to the special verdict form. But turning to the merits, the court denied the
16 Manufacturers' after-the-fact motion to strike Dr. Rapp's brief mention of "revealed preference
17 theory" but also ruled that Rambus could not reopen his direct testimony on that topic. *See* Tr.
18 5273:21-5275:9. In passing, the court noted that "the argument really is more of a common sense
19 argument that doesn't really require expert testimony to understand." Tr. 5275:3-6. While Rambus's
20 counsel mentioned Dr. Rapp in passing during closing argument, he grounded his argument in the
21 court's observation that Rambus's argument did not require expert testimony. *See* Tr. 5969:17-
22 5970:4 (explaining that revealed preference theory is nothing more than a cowboy's admonition that
23 "actions speak louder than words"). Rambus's counsel then summarized the evidence *without*
24 relying on Dr. Rapp's opinion. *See* Tr. 5969:25-5979:2. Accordingly, the Manufacturers were not
25 materially prejudiced by Dr. Rapp's one line of opinion testimony.

26 **J. Testimony Quantifying the Amount of Switching Costs**

27 The Manufacturers next claim that the court erred in preventing the Manufacturers from
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1 presenting evidence regarding the financial cost of switching away from using Rambus's
2 technologies. Specifically, the Manufacturers allege the court erred in restricting the scope of
3 Andreas Bechtolsheim and Brian Shirley's testimony and by excluding Dr. Christopher McArdle's
4 opinion on the magnitude of switching costs. Contrary to the implication in the Manufacturers'
5 argument, the court did not preclude evidence regarding switching but rather found the proffered
6 testimony lacked foundation.

7 Ignoring for the moment the merits of the court's rulings, the Manufacturers do not
8 adequately explain how exclusion of the dollar amount of switching costs prejudiced their case. The
9 court instructed the jury that switching costs could be relevant to the existence of monopoly power.
10 *See, e.g.*, Docket No. 1650, C-05-00334, at 30 (N.D. Cal. Mar. 25, 2008). In fact, the jury found that
11 Rambus possessed monopoly power in all six technology markets. *See* Docket No. 1651, C-05-
12 00334, at 3 (N.D. Cal. Mar. 26, 2008). The elements of causation and injury could also be
13 influenced by evidence of high switching costs, though the jury did not reach that issue because the
14 jury found that Rambus did not engage in anticompetitive conduct in obtaining its monopoly power.

15 The Manufacturers point out that Rambus argued that the Manufacturers' continued use of
16 Rambus's inventions suggest that Rambus's technologies were superior. They argue that this
17 inference is incorrect because their continued use is due to high switching costs, not technological
18 superiority. Completing the argument, the Manufacturers suggest that their inability to present the
19 exact amount of their switching costs prevented them from rebutting Rambus's argument, which
20 could have motivated the jury's verdict on anticompetitive conduct. This argument sets forth an
21 attenuated theory of relevance and fails to explain how the Manufacturers were prejudiced by not
22 being able to submit a specific estimate of switching cost from Bechtolsheim, Shirley or McArdle.
23 Dr. McArdle did testify about the economic phenomenon of lock-in generally and how it applied to
24 this case. Bechtolsheim testified that Sun's switching cost would be enormous. Shirley was
25 permitted to give detailed testimony as to the nature of some of Micron's switching costs and the
26 magnitudes of some of those costs. *See* Tr. 2266:8-2284:4 (detailing Micron's cash costs,
27 opportunity costs, and inventories).

1 But turning to the evidentiary rulings themselves, the court did not err in excluding Dr.
2 McArdle's opinion on the amount of switching costs. *See generally Hynix Semiconductor Inc. v.*
3 *Rambus Inc.*, 2008 WL 73681 (N.D. Cal. Jan. 5, 2008). To summarize, Dr. McArdle presented two
4 hypothetical scenarios to attempt to explain how the Manufacturers were locked in to using
5 Rambus's technologies and to quantify the amount of switching costs. As discussed, his first
6 scenario - the "abrupt change" - was so unmoored from reality that it was not admissible. *See id.* at
7 *4-*5. Dr. McArdle's second scenario - the "gradual change" - built off of his unreliable work
8 regarding the abrupt change. *See id.* at *5. Dr. McArdle's basis for his cost estimate was flawed and
9 the court held that "Rambus's arguments regarding the quality of McArdle's data and the accuracy of
10 his methods are meritorious." *Id.* at *6. The court then held that because the Manufacturers were
11 not claiming monetary damages based on their switching costs, Dr. McArdle's switching cost
12 estimate was of limited probative value and the court excluded it. *Id.* at *6.

13 At the time, the court's opinion did not consider how the amount of switching costs could be
14 relevant to anticompetitive conduct. Nonetheless, given the limited probative value of the switching
15 cost testimony to the element of anticompetitive conduct (as described above), and the utterly flawed
16 data and methodology used by Dr. McArdle in arriving at his opinion, the court's *Daubert* ruling was
17 sound.

18 The court's reasoning regarding Brian Shirley was also described in a detailed order. *See*
19 *Hynix Semiconductor Inc. v. Rambus Inc.*, 2008 WL 504101 (N.D. Cal. Feb. 20, 2008). In short,
20 Mr. Shirley lacked any foundation for proffering a lay opinion on the amount of switching costs
21 Micron would have endured had it switched because the opinion was not based on Mr. Shirley's
22 personal experience. *Id.* at *1. Putting aside this independent ground for excluding the testimony,
23 Mr. Shirley's testimony was of minimal relative probative value. In light of the minimal relative
24 probative value of his "recollection" that Micron calculated its switching costs to be "multiple
25 hundreds of millions of dollars at minimum," the court properly excluded this one line of testimony
26 as substantially more prejudicial than probative.

27 Finally, the Manufacturers argue that the court erred in preventing Mr. Bechtolsheim from
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providing an estimate of Cisco's switching costs, pointing to the following colloquy:

Mr. Ruby: Given the number of products that Sun makes that incorporate JEDEC standards, are you able to estimate the cost to Sun of, of changing from the JEDEC standard to something else, if that decision were made?

Mr. Stone: Objection, your Honor. Lacks foundations and outside the scope.
The court: I think he can answer the question yes or no, and then see if we need to worry about going further.

Mr. Stone: Thank you, your Honor.

Mr. Bechtolsheim: I cannot give you a specific number, but the cost would be enormous.

Mr. Stone: Move to strike the comment beyond I can't give you a specific number.

The court: I'm going to allow the enormous, but I think that's all that can be taken from what he said.

Mr. Ruby: That's all the questions I have. Thank you, Mr. Bechtolsheim.

Tr. 1506:2-21. First, Mr. Bechtolsheim was asked about Sun, not Cisco, so it is unclear how the court prevented Mr. Bechtolsheim from testifying about Cisco's switching costs. Second, the Manufacturers did not attempt to ask about Cisco or raise the issue that Mr. Bechtolsheim should be asked to provide a specific number.¹⁰ Third, the court did not preclude any line of questioning with its ruling denying Rambus's motion to strike Mr. Bechtolsheim's testimony. The Manufacturers argue that court "instructed that Mr. Bechtolsheim could only testify that switching costs would have been 'enormous.'" Nothing in the court's comments *denying Rambus's motion to strike* can be construed as limiting the Manufacturers' ability to question Mr. Bechtolsheim. In sum, the Manufacturers' argument regarding Mr. Bechtolsheim is premised on a distortion of the court's ruling. As the court did not make any ruling prejudicing the Manufacturers, let alone an erroneous one, there is no basis for granting a new trial based on Mr. Bechtolsheim's testimony.

K. The FTC's Liability Opinion

The Manufacturers argue that this court erred by refusing to accord *prima facie* or collateral estoppel effect to the FTC's liability opinion or to allow it into evidence under Rule 803(8). *See Rambus Inc. v. Hynix Semiconductor Inc.*, Docket No. 1019, C-05-00334-RMW (N.D. Cal. Jan. 9, 2008) (denying *prima facie* and collateral estoppel effect); *Hynix Semiconductor Inc. v. Rambus*

¹⁰ To the extent the Manufacturers' motion meant to argue that Mr. Bechtolsheim was prevented from providing a number regarding Sun's switching costs, Mr. Bechtolsheim's testimony was that "I cannot give you a specific number."

1 *Inc.*, 2008 WL 282376 (N.D. Cal. Jan. 28, 2008) (denying motion *in limine* to admit the FTC's
2 opinion). The D.C. Circuit recently set aside the FTC's orders. *See Rambus Inc. v. F.T.C.*, 522 F.3d
3 456 (D.C. Cir. 2008). Accordingly, regardless of whether the court properly excluded the evidence,
4 the ruling kept the jury from considering findings that were vacated.

5 The Manufacturers also characterize the court's order denying *prima facie* weight to the
6 FTC's findings as "eve-of-trial" and that the Manufacturers had relied on the order in preparing for
7 trial. The Manufacturers overstate their surprise. The court apprised the Manufacturers of its
8 concerns regarding its prior order granting *prima facie* weight on November 21, 2007, over two
9 months before trial began. *See* Hearing Tr., Docket No. 3068, *Hynix Semiconductor Inc. v. Rambus*
10 *Inc.*, C-00-20905, at 6:6-9 (N.D. Cal. Jan. 22, 2008). The court provided the parties with a copy of
11 a tentative order explaining the court's reasoning and the court's intent to vacate its prior order and
12 deny *prima facie* weight to the FTC's liability opinion. *Id.* At the hearing, the court granted the
13 Manufacturers' request to submit additional briefing on the issue. *Id.* at 7:8-13, 40:21-42:20. After
14 considering the Manufacturers' additional briefing, the court ruled on December 13, 2007 that it
15 would adopt the tentative order it shared with counsel three weeks earlier. *See* Hearing Tr., Docket
16 No. 3069, *Hynix Semiconductor Inc. v. Rambus Inc.*, C-00-20905, at 107:14-19 (N.D. Cal. Jan. 22,
17 2008). The court then posted the order denying *prima facie* and collateral estoppel effect on January
18 9, 2008.

19 Significantly, at no point did the Manufacturers request a continuance of the trial date to
20 adjust their trial planning. The absence of such a request undermines the Manufacturers' after-the-
21 fact claim of detrimental reliance on the court's order. The failure to request a continuance is also
22 fatal to a request for a new trial based on any "surprise" caused by the court's order. "Litigants are
23 required to be reasonably alert at trial in the protection of their own interests." *Moylan v. Siciliano*,
24 292 F.2d 704, 705 (9th Cir. 1961). A party's failure to request a continuance after being "stunned"
25 by a witness' testimony waived their argument in urging a new trial that they had been unfairly
26 surprised. *Id.* Similarly, the Manufacturers' failure to request a continuance at any point in the two
27 months between being informed of the court's intent to vacate its prior order and the start of trial
28

1 waives any argument that they were prejudiced by unfair surprise in presenting their case.

2 **V. THE CLEAR WEIGHT OF THE EVIDENCE**

3 On page 39 of their brief, the Manufacturers baldly assert that the jury's verdict was not
4 supported by the substantial weight of the evidence. In support, the Manufacturers "incorporate by
5 reference" their opposition to Rambus's motion for judgment as a matter of law, a document with 53
6 pages of briefing.

7 In light of the civil local rules' page limit on briefing, the Manufacturers sought forty pages
8 for their motion for a new trial. Docket No. 1664, C-05-00334-RMW (N.D. Cal. Apr. 8, 2008). The
9 court granted that request over Rambus's opposition. Docket No. 1670, C-05-00334-RMW (N.D.
10 Cal. Apr. 9, 2008). The Manufacturers cannot now twist that page limitation by "incorporating"
11 dozens of additional pages that would more than double their requested (and granted) page limit.

12 Nonetheless, the court may only grant a new trial if the jury's verdict is against the "clear
13 weight" of the evidence. *Wallace v. City of San Diego*, 479 F.3d 616, 630-31 (9th Cir. 2007). It
14 may not grant a new trial simply because it would have arrived at a different verdict. *Id.* at 630.
15 Reflecting on the evidence in the record, the court does not believe the jury's verdict was against the
16 clear weight of the evidence. *Cf. Rambus Inc.*, 522 F.3d at 469 (commenting on the FTC's
17 "aggressive interpretation of rather weak evidence").

18 **VI. CONCLUSION**

19 To be sure, errors must be considered cumulatively in deciding whether a trial was more
20 likely than not tainted by error. *Jerden v. Amstutz*, 430 F.3d 1231, 1240-41 (9th Cir. 2005). The
21 Manufacturers have ascribed error to a variety of rulings, but the court finds none, let alone any
22 prejudicial errors. The trial was lengthy and complex with a multitude of issues raised by the
23 parties. The court finds that the trial was fair and the result was not against the clear weight of the
24 evidence. Accordingly, the motion for a new trial is denied.

25 //

26 //

27 //

VII. ORDER

For the foregoing reasons, the Manufacturers' motion for a new trial is denied.

DATED: 7/24/2008



RONALD M. WHYTE
United States District Judge

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Dated: 7/24/08

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